### Please add the following new claims:

22. (newly added) A method according to Claim 1 wherein said step of using historical data to determine a target group further comprises the step of using historical data to determine a target group based upon a plurality of models embedded within and executed by the targeting engine wherein the targeting engine is further configured to determine a risk factor for the target group after combining each model.

23. (newly added) A system according to Claim 11 wherein said targeting engine is further configured to determine a risk factor for the target group after combining each model.

#### Remarks

The Office Action mailed September 4, 2002 and made final has been carefully reviewed and the foregoing amendment has been made in consequence thereof. Submitted herewith is a Submission of Marked Up Claims.

Claims 1-4, 6-11, 13-16, and 18-23 are pending in this application. Claims 1-11, and 13-21 stand rejected. Claims 5, 12, and 17 have been cancelled. Claims 22-23 are newly added.

The objection to Claims 8, 9, 10, and 13 is respectfully traversed. Applicants have amended Claims 8, 9, 10, and 13. Accordingly, Applicants respectfully submit that the objection to Claims 8, 9, 10, and 13 be withdrawn.

The rejection of Claims 1-4, 6-11, 13-16, and 18-21 under 35 U.S.C. § 102(e) as being anticipated by Chou et al. (U.S. Patent No. 6,061,658) ("Chou") is respectfully traversed.

Applicants respectfully submit that Chou does not describe nor suggest the claimed invention. As discussed below, at least one of the differences between Chou and the present invention is that Chou neither describes nor suggests determining a sequential order for combining models to define a target group, and combining the models in the determined sequential order to define the target group. Furthermore, as stated on page 8 of the Office

Action, at least one other difference between Chou and the present invention is that Chou neither describes nor suggests combining models to determine a risk factor for a target group.

Chou describes a system for selecting prospective customers that includes an input device (307) for inputting demographic data on a multiplicity of households in a reference market population (105) and demographic data on a multiplicity of customers in a customer population (101) and inputting a variable identifier to each of the customers in customer population (101) and to each of the households of reference population (105), a central processor (301) for sorting the demographic data on the households and the customers by multiplicity segments (111), and an output device (303) responsive to central processor (301). Each segment (111) represents one or more demographic characteristics. Central processor (301) calculates a statistical score representing each of segments (111) from a ratio comparing an amount of the customers to an amount of the households. Output device (303) also displays the statistical score and prospect records based on the statistical score.

Claim 1 recites a method for increasing the efficiency of marketing campaigns using a targeting engine for analyzing data input and generating data output, wherein the method includes "using historical data to determine a target group based upon a plurality of models embedded within and executed by the targeting engine, the targeting engine is configured to determine a sequential order for combining the models to define the target group, and combine the models in the determined sequential order to define the target group and determine a risk factor for the target group...and directing the marketing campaign towards the target group determined by the models."

Chou does not describe nor suggest a method for increasing the efficiency of marketing campaigns that includes using historical data to determine a target group based upon a plurality of models embedded within and executed by the targeting engine wherein the targeting engine is configured to determine a sequential order for combining the models to define the target group, and combine the models in the determined sequential order to define the target group and

determine a risk factor for the target group, and directing the marketing campaign towards the target group determined by the models. More specifically, Chou does not describe nor suggest a targeting engine that is configured to determine a sequential order for combining models to define a target group, and combine the models in the determined sequential order to define the target group and determine a risk factor for the target group.

Rather, Chou describes a system that applies data mining techniques to databases containing records representing customer and overall market populations for the purposes of selecting market segments and prospective customers for targeted marketing. Chou mentions at column 2, lines 35-41 that a "score, preferably the 'market penetration rate', the ratio between the fraction of the customer population and the fraction of the overall market population that falls into the segment, may be calculated and used as a measure of the desirability of the segment with respect to the marketing campaign objective". Chou also mentions at column 2, lines 51-53 that "[a]lternative measures such as the average revenue or profit per household...can also be used as the score." Finally, Chou mentions at column 2, lines 59-61 that a "Tree Induction" algorithm may be implemented for market segmentation purposes. Although Chou appears to discuss alternative ways to calculate a "score" for segmentation purposes, Chou does not describe nor suggest combining models to define a target group. Moreover, Chou does not describe nor suggest determining a sequential order for combining models to define a target group.

Accordingly, Applicants respectfully submit that Claim 1 is patentable over Chou.

Furthermore, Chou does not describe nor suggest a targeting engine that combines models to determine a risk factor for a target group. In fact, the Office Action provides at page 8 that "Chou et al. does not expressly disclose calculating a risk factor for a target group."

Accordingly, Applicants respectfully submit that Claim 1 is patentable over Chou.

For at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 102(e) rejection of Claim 1 be withdrawn.

Claims 2-4, and 6-10 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-4, and 6-10 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-4, and 6-10 likewise are patentable over Chou.

Claim 11 recites a system configured to increase efficiency of marketing campaigns that includes "a customer database which includes customer demographics and historical data...a targeting engine for analyzing data input and generating data output, said targeting engine having a plurality of models stored thereon, said targeting engine configured to access said historical data, determine a sequential order for combining said models to define the target group, and combine said models in the determined sequential order to determine a target group for marketing and determine a risk factor for the target group...and a graphical user interface for accessing customer database and displaying data output."

Chou does not describe nor suggest a system configured to increase efficiency of marketing campaigns that includes a customer database having customer demographics and historical data, and a targeting engine for analyzing data input and generating data output that has a plurality of models stored thereon, wherein the targeting engine is configured to access the historical data, determine a sequential order for combining the models to define the target group, and combine the models in the determined sequential order to determine a target group for marketing and determine a risk factor for the target group.

More specifically, Chou does not describe nor suggest a targeting engine that is configured to determine a sequential order for combining models to define the target group, and combine the models in the determined sequential order to determine a target group for marketing. Chou also does not describe nor suggest combining models in a determined sequential order to determine a risk factor for a target group.

Rather, Chou describes a system that applies data mining techniques to databases containing records representing customer and overall market populations for the purposes of selecting market segments and prospective customers for targeted marketing. Although Chou

mentions alternative measures that may be calculated and used as a measure of the desirability of a segment with respect to a marketing campaign, Chou does not describe nor suggest determining a sequential order for combining models to define a target group, and combining the models in the determined sequential order to determine the target group for marketing. Furthermore, Chou does not describe nor suggest combining models in a determined sequential order to determine a risk factor for a target group. In fact, the Office Action provides at page 8 that "Chou et al. does not expressly disclose calculating a risk factor for a target group."

Accordingly, Applicants respectfully submit that Claim 11 is patentable over Chou.

For at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 102(e) rejection of Claim 11 be withdrawn.

Claims 13-16, and 18-21 depend, directly or indirectly, from independent Claim 11. When the recitations of Claims 13-16, and 18-21 are considered in combination with the recitations of Claim 11, Applicants submit that dependent Claims 13-16, and 18-21 likewise are patentable over Chou.

For at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 102(e) rejection of Claims 1-4, 6-11, 13-16, and 18-21 be withdrawn.

The rejection of Claims 5 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Chou in view of Jackson et al., <u>Strategic Database Marketing</u> (1996) (referred to herein as "Jackson") is respectfully traversed.

Chou is described above. Jackson generally describes a business-based approach to strategic database marketing, wherein historical data collected by a marketer is stored in historical data management databases such that the historical data can be later used by the marketer. (See pages 27-28.) Jackson also describes a recency, frequency, and monetary (RFM) analysis that allows a marketer to identify a business' "best customers" based upon the frequency and sales dollars that the customers have spent with the business. The RFM data can also be

used to create a lifetime value model of customers, which can project the value of a customer over a period of years. (See pages 40-41.) Jackson further describes combining models so that a marketer can determine the most desirable segments upon which to focus the allocation of marketing resources. (See pages 184-185.) The database-driven marketing programs enable a business to target a specific product to the correct consumer in order to make a sale. (See page 39.)

Claim 5 has been cancelled and the recitation of cancelled Claim 5 has been incorporated into independent Claim 1. Claim 1 recites a method for increasing the efficiency of marketing campaigns using a targeting engine for analyzing data input and generating data output, wherein the method includes "using historical data to determine a target group based upon a plurality of models embedded within and executed by the targeting engine, the targeting engine is configured to determine a sequential order for combining the models to define the target group, and combine the models in the determined sequential order to define the target group and determine a risk factor for the target group…and directing the marketing campaign towards the target group determined by the models."

Chou describes a system that applies data mining techniques to databases containing records representing customer and overall market populations for the purposes of selecting market segments and prospective customers for targeted marketing. Although Chou mentions alternative measures that may be calculated and used as a measure of the desirability of a segment with respect to a marketing campaign, Chou does not describe nor suggest determining a sequential order for combining models to define a target group, and combining the models in the determined sequential order to determine the target group for marketing. Moreover, Chou does not describe nor suggest combining models in a determined sequential order to determine a risk factor for a target group.

Jackson describes a business-based approach to strategic database marketing that uses historical data and models to generate data that is then analyzed by a marketer to determine the

most desirable segments upon which to focus the allocation of marketing resources. In other words, Jackson generates data that is analyzed by a marketer such that the marketer can determine a target group. For example, Jackson states that a marketing database "allows the marketer to analyze the data for detailed marketing decisions." (See page 28.) Jackson also states that "[w]ith this information [RFM data], a marketer can not only determine which customers have the best potential, but also how much he or she can market to these customers over time and still maximize profits." (See page 41.)

In contrast, the present invention describes using a targeting engine for analyzing data input or generating data output, and using historical data and a plurality of models executed by the targeting engine wherein the targeting engine is configured to determine a sequential order for combining the models to define the target group, and combine the models in the determined sequential order to define the target group and determine a risk factor for the target group. It does not appear that Jackson even mentions using a targeting engine for analyzing data input or generating data output, or for determining a sequential order for combining models to define the target group, and combining the models in the determined sequential order to define the target group and determine a risk factor for the target group.

Neither Chou nor Jackson, considered alone or in combination, describe nor suggest a method for increasing the efficiency of marketing campaigns that includes using historical data to determine a target group based upon a plurality of models embedded within and executed by the targeting engine wherein the targeting engine is configured to determine a sequential order for combining the models to define the target group, and combine the models in the determined sequential order to define the target group and determine a risk factor for the target group, and directing the marketing campaign towards the target group determined by the models.

More specifically, neither Chou nor Jackson, considered alone or in combination, describe nor suggest a targeting engine that is configured to determine a sequential order for combining models to define a target group, and combine the models in the determined sequential

order to define the target group and determine a risk factor for the target group. Accordingly, Applicants respectfully submit that Claim 1 is patentable over Chou in view of Jackson.

Therefore, for at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of Claim 5 be withdrawn, and Applicants respectfully submit that Claim 1 is patentable over Chou in view of Jackson.

Claim 17 has been cancelled and the recitation of cancelled Claim 17 has been incorporated into independent Claim 11. Claim 11 recites a system configured to increase efficiency of marketing campaigns that includes "a customer database which includes customer demographics and historical data...a targeting engine for analyzing data input and generating data output, said targeting engine having a plurality of models stored thereon, said targeting engine configured to access said historical data, determine a sequential order for combining said models to define the target group, and combine said models in the determined sequential order to determine a target group for marketing and determine a risk factor for the target group...and a graphical user interface for accessing customer database and displaying data output."

Neither Chou nor Jackson, considered alone or in combination, describe nor suggest a system configured to increase efficiency of marketing campaigns that includes a targeting engine for analyzing data input and generating data output that has a plurality of models stored thereon, wherein the targeting engine is configured to determine a sequential order for combining the models to define a target group, and combine the models in the determined sequential order to determine a target group for marketing and determine a risk factor for the target group. More specifically, neither Chou nor Jackson, considered alone or in combination, describe nor suggest a targeting engine that is configured to determine a sequential order for combining models to define a target group, and combine the models in the determined sequential order to determine a target group for marketing and determine a risk factor for the target group.

Rather, Chou describes a system that applies data mining techniques to databases containing records representing customer and overall market populations for the purposes of

selecting market segments and prospective customers for targeted marketing. Jackson describes a business-based approach to strategic database marketing that uses historical data and models to generate data that is then analyzed by a marketer to determine the most desirable segments upon which to focus the allocation of marketing resources. Accordingly, Applicants respectfully submit that Claim 11 is patentable over Chou in view of Jackson.

Therefore, for at least the reasons set forth above, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of Claim 17 be withdrawn, and Applicants respectfully submit that Claim 11 is patentable over Chou in view of Jackson.

Notwithstanding the above, the rejection of Claims 5 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Chou in view of Jackson is further traversed on the grounds that the Section 103 rejection of the presently pending claims is not a proper rejection. Obviousness cannot be established by merely suggesting that it would have been obvious to one of ordinary skill in the art to modify Chou using the teachings of Jackson. More specifically, as is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte

Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants 'disclosure, in the prior art to combine such

references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. <u>In re Vaeck</u>, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

Neither Chou nor Jackson, considered alone or in combination, describe nor suggest the claimed combination. Rather, the present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Chou is cited for teaching a method that includes using historical data to determine a target group based upon a plurality of models. Jackson is cited for teaching calculating a risk factor for a target group. Since there is no teaching, suggestion or motivation for the combination of Chou and Jackson, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejection of Claims 5 and 17 be withdrawn.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 5 and 17 be withdrawn.

Newly added Claim 22 depends from independent Claim 1, which is believed to be in a condition for allowance. When the recitations of Claim 22 are considered in combination with the recitations of independent Claim 1, Applicants submit that dependent Claim 22 is also patentable over the cited art.

Newly added Claim 23 depends from independent Claim 11, which is believed to be in a condition for allowance. When the recitations of Claim 23 are considered in combination with the recitations of independent Claim 11, Applicants submit that dependent Claim 23 is also patentable over the cited art.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Samra et al. :

: Art Unit: 3623

Serial No.: 09/474,974

Examiner: Beth Van Doren

Filed: December 29, 1999

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For: METHODS AND SYSTEMS

FOR TARGETING MARKETS

#### **SUBMISSION OF MARKED UP CLAIMS**

Box AF Hon. Commissioner for Patents Washington, D.C. 20231

Submitted herewith are marked up Claims in accordance with 37 C.F.R. 1.121(c)(1)(ii).

### IN THE CLAIMS

Please cancel Claims 5 and 17.

1. (twice amended) A method for increasing the efficiency of marketing campaigns using a targeting engine for analyzing data input and generating data output, said method including the steps of:

using historical data to determine a target group based upon a plurality of models embedded within and executed by the targeting engine, [wherein] the targeting engine is configured to determine a sequential order for combining the models to define the target group, and combine[s] the models in the determined sequential order to define the target group and determine a risk factor for the target group; and

directing the marketing campaign towards the target group determined by the models.

- 8. (once amended) A method according to Claim 1 wherein said step of directing the marketing campaign towards the target group [flagged] <u>determined</u> by the models further comprises the step of rank ordering accounts.
- 9. (once amended) A method according to Claim 1 wherein said step of directing the marketing campaign towards the target group [flagged] <u>determined</u> by the models further comprises the step of segmenting accounts based on customer demographics.
- 10. (once amended) A method according to Claim 1 wherein said step of directing the marketing campaign towards the target group [flagged] <u>determined</u> by the models further comprises the step of identifying cross-sell targets.
- 11. (twice amended) A system configured to increase efficiency of marketing campaigns, said system comprising:
  - a customer database which includes customer demographics and historical data;
- a targeting engine for analyzing data input and generating data output, said targeting engine having a plurality of models stored thereon, said targeting engine configured to access said historical data, determine a sequential order for combining said models to define the target group, [uses said historical data] and combine[s] said models in the determined sequential order to determine a target group for marketing and determine a risk factor for the target group; and
  - a graphical user interface for accessing customer database and displaying data output.
- 13. (twice amended) A system according to Claim 11 further configured to use historical data stored in said customer database to direct a marketing campaign towards a target group [flagged] determined by the plurality of models.

# Please add the following new claims:

- 22. (newly added) A method according to Claim 1 wherein said step of using historical data to determine a target group further comprises the step of using historical data to determine a target group based upon a plurality of models embedded within and executed by the targeting engine wherein the targeting engine is further configured to determine a risk factor for the target group after combining each model.
- 23. (newly added) A system according to Claim 11 wherein said targeting engine is further configured to determine a risk factor for the target group after combining each model.

  Respectfully Submitted,

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